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Chapter

VANEDELA's Test Screening, Comparison Low, Middle, and High Risk in Mexican Population

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Abstract

The neurodevelopment screening test Valoración Neuroconductual del Lactante (VANEDELA's) allows the professional to follow the rapid and economic application development in which high- and moderate-risk children who do not reach their optimum development potential during the first 2 years of life can be detected in a timely manner. It also provides a tracking tool to follow-up the recommendations and interventions of children who had developmental delays to see how adaptive strategies work.

Keywords: VANEDELA's screening test, developmental delays, early childhood development

1. Introduction

Infant tracking is one of the important services in pediatrics, as there are different risk factors that affect the structure or those that are the product of parenting either by default or oversolving their needs without allowing the child to explore and participate in the construction of their competences, which are children without any organic pathology; however, they are delayed in development, as we will see later, leaving them unattended until the problem becomes apparent, given that the current health model focuses on the detection of children at risk of disability, escaping or belatedly detecting alterations in growth and development. World Health Organization (WHO) reported in 2010 that 249.4 million (43%) children under the age of 5 in the world and 9.7 million (18%) in Latin America and Caribbean presented risks of not reaching their development potential for various causes such as poverty, poor nutrition, unresponsive care and others. In addition, many research in the open population in Mexico reported figures of 40% of children with mild and moderate delays [1–3]. Mexico's cases are reported and recorded in which the sequel is clearly established, the technique "wait and see" issued, waiting for the infant to solve the problem or to structure the disability through maturation, being late his attention. For example of this is parents who come and go with their children, reporting to health personnel observations of behaviors that do not perform or make them different to other children of the same age, because having no early referrals tend to leave ample waiting times if provide an adequate solution to

the patient and the family, which causes the delay [4–6] to increase and adequate solutions to the patient and the family, which causes the delay to increase.

The protective factors are intimately linked to organizational possibilities and stimulating variability that allow the child to explore and interpret, creating categories of greater complexity, integrating motor, cognitive, communication, emotional interaction, social interaction, and self-care [7, 8]. Faced with this problem, screening instruments allow timely detection of children who present obstacles at different times in the first years of life, as well as being a useful and quick tool to follow-up [9–11]. "Valoración Neuroconductual del Lactante" (VANEDELA) is a Mexican sieve test with sensitivity (79–89%) and specificity (83–95%) [12]. In order to detect early infants at risk for sequelae at the first level of care, six cohorts of ages 1, 4, 8, 12, 18, and 24 months (M) are evaluated, with white-indicators, which children with delays do not perform at the proposed age. The instrument consists of three formats and somatometry is taken into account [13]. For this chapter, the formats of developmental behaviors (CDs) and developmental reactions (RDs) were analyzed in infants.

2. Development behaviors format (CD)

It consists of 60 behaviors that are grouped in different areas of development such as feeding, gross and fine motor, receptive and expressive language, cognitive development. The evaluation sheet is presented in six cohorts of ages 1, 4, 8, 12, 18, and 24 months; each cut includes 10 reagents, which qualifies a positive point when the observation or negative reference is met if performing qualitatively prior to that requested, the final score considers risk-free when the child gets 10 points, mild risk 9–8, and risk of alteration 7 or fewer points.

Correlation data were obtained from Pearson and Student's t-test to assess the difference between mean and rating groups in behaviors and reactions of developmental will be used at J MP 8 statistical software.

3. Reactions of development format (RD)

A total of 10 reactions divided into 3 groups are evaluated according to their evolution: four are straightening reactions, three defense, and three balance. The evaluation sheet is presented in cohort of age. The first month evaluates the reaction of optical, labyrinth, and head straightening acting on the body; Landau reflux in 4 months; straightening of the body and sitting lateral defense in 8 months; the reaction of defense forward and defense sitting back in 12 months; the sitting equilibrium reaction at four points by 18 months; and the equilibrium reaction stopped in 24 months.

4. Record format of alarm's signs (SA)

In this format, a series of signs that can be observed during the evaluation or informed by the caregiver are presented. These involve changes or modifications of behavior that are usually associated with disorders of the functioning of the nervous system. They explore feeding area, visual and auditory perceptions, motor, social emotional, the cognitive year, language, and other additional ones.

They are considered positive when they comply with the criterion and negative if they present a less advanced behavior or are accompanied by signs. The rating

gives normal when they present the reactions that are evaluated at the age cohort, slight risk to find any of the reactions evaluated that are still in process, and risk of alteration when the expected reaction does not occur or is accompanied by signs. It is necessary to emphasize the reactions of the development, allow the infant to organize the different movement patterns, and reach the bipedal posture and move.

In order to analyze the importance of early monitoring of infants, the first 2 years of life optimize their development. In a study conducted in newborns and infants from 2011 to 2014, in the Neurodevelopment Monitoring Laboratory in National Institute of Pediatrics and the Tlalpan Family Medicine Clinic, ISSSTE, parents accepted and signed the informed consent letter. The VANEDELA's test was applied to determine the behaviors that were being constructed as part of the research "*Acquisition ages in Mexican infants of the evolutionary sequences of the white behaviors of the VANEDELA's screening test*" approved by the Research Commissions and Ethics of the National Institute of Pediatrics (Registration number INP 030/2011).

The average age of the mothers was 29.32 ± 5.43 years, with a minimum age of 16 and a maximum age of 43 years; average age of the father was 33.37 ± 6.80 years, with a minimum age of 20 and a maximum age of 53 years. With medium to professional studies and that one of the parents had a stable job, the Gini's coefficient of 0.1292 was obtained, which places them as a population with an adequate level of economic well-being [14].

A total of 442 evaluations were carried out between 1 and 24 months of age, 224 (51%) boys and 218 (49%) girls were distributed by gender. According to their performance in the EEC Gesell's development test [15], three low risk groups were configured, which are children who did not present perinatal risk and their performance is as expected. Moderate risk those children who does not present perinatal risk; but a minor problem such as allergy or problems of upbringing or a performance lower than 85. But greater than 76 and high risk those who presented perinatal risk as at birth congenital heart disease, congenital hypothyroidism, premature infants, perinatal asphyxia, and epilepsy who attended mainly to the National Institute of Pediatrics.

With this follow-up, we observed that children can present some obstacles in the process of building different competences in the course of development both without and with perinatal risk [16]. According with the instrument, we have 202 infants from 1 to 24 months, follow the trajectory expected, 127 perform behaviors among 9–8 of the proposals, here we could be seeing both children if perinatal risk or infants at risk who are in follow-up are building the various skills and 113 are at perinatal risk that will have scores of 7 or less.

The relation, the three-risk group and the score obtained in the format of developmental behaviors and developmental reactions is significant when analyzing the relationship for each group the low-moderate risk relationship in development reactions does not show significant difference what is if the alterations in the development reactions will be delayed when neurological damage occurs, however, after 8 months, we observe that the difference between low and high risk, probably the reactions of actively rolling and protection to the front, is not significant, they come a little later.

In the analyze, by month to cohort and month the children (a) of low risk presents a proportion of realization between (1) and (0.92); those of moderate risk between (1) and (0.60), making the reagents of visual tracking 45° on each side difficult, try to raise the head, activating the muscles of the neck, although the labyrinthine optical reflex is present and the flexion of prone members, possibly some of these children presented low tone; high-risk infants are between (0.36) and (0.93), where the behaviors that occur most often are heard the sound of the rattle

First month	Areas		Risk		P
n = 75		Low	Middle	High	
1.1. Child sucking without choking or turning purple*	A	49(0.96)	8(0.80)	5(0.36)	<0.0001*
1.2. Palmar grasp	MF	51(1)	9(0.90)	9(0.64)	
1.3. Child clearly responds to the sound of the rattle and stop or increase movement	C	50(0.98)	10(1)	12(0.86)	
1.4. Eye contact	MF	51(1)	9(0.90)	11(0.79)	0.0017*
1.5. Eyes fellow the face 90° (45°/45°)	MF	49(0.96)	6(0.60)	7(0.5)	
1.6. Child hold his or her head erect for at 3 seconds or try to straighten it seated	MG	51(1)	6(0.60)	7(0.5)	<0.0001*
1.7. Child turns his or her head from one side by raising his or her head off the supporting surface enough to clear the nose	MG	50(0.98)	8(0.80)	8(0.57)	0.0263*
1.8. Child is lying prone on the exam surface with flexion of the limbs	MG	51(1)	7(0.70)	10(0.71)	0.0246*
1.9. Cries loud when is displeasure*	LE	50(0.98)	10(1)	11(0.79)	0.0275*
1.10. Child calms when picked up and snuggle*	LR	51(1)	10(1)	13(0.93)	
1. Labyrinth optical reflex	RD	48(0.94)	9(0.90)	11(0.77)	
2. Straightening reflex of the head acting on the body	RD	49(0.96)	10(1)	9(0.64)	0.0008*
Quarter month	**Areas**		**Risk**		**P**
n = 77		Low	Middle	High	
4.1. Child does not reject to eat mashed food, energetic suction*	A	22(1)	28(0.85)	11(0.5)	0.0091*
4.2. Contact grasp	MF	22(1)	30(0.91)	17(0.77)	
4.3. Child carries and object to his or her mouth	C	22(1)	23(0.7)	13(0.59)	0.0004*
4.4. Social interaction playing or laughs*	LR	22(1)	28(0.85)	19(0.86)	
4.5. Turns head to follow the ring 180°	MF	21(0.95)	26(0.79)	16(0.73)	0.0072*
4.6. Child uses at least one hand to grasp the object in the midline or while moving	MF	22(1)	24(0.73)	7(0.32)	
4.7. Child holds onto your hands to seat it, the head is aligned to the body.	MG	22(1)	30(0.91)	14(0.64)	0.0424*
4.8. Child pushes up using both arms so that the head and chest are lifted off the exam surface	MG	22(1)	22(0.67)	5(0.23)	0.00134*
4.9. Child is not discomfort by the prone position	MG	22(1)	21(0.64)	7(0.32)	<0.0001*
4.10. Child vocalizes spontaneously or in response to the speaker's attention*	LE	22(1)	27(0.82)	16(0.73)	<0.0001*
3. Landau's reflex	RD	19(0.86)	30(0.91)	11(0.5)	<0.0001*
Eighth month	**Area**		**Risk**		**P**
n = 83		Low	Middle	High	
8.1. Eats a cookie alone*	A	46(0.92)	24 (0.86)	5(0.63)	0.0044*
8.2. Sits alone without support		46(0.92)	28(1)	6(0.75)	0.0027*

8.3. Takes an object in each hand	MF	46(0.92)	24(0.86)	6(0.75)	0.0387*
8.4. Finds a partially hidden toy	C	45(0.9)	24(0.86)	7(0.88)	
8.5. Explores the face of the mother with interest*	C	46(0.92)	22(0.79)	6(0.75)	0.0136*
8.6. Child when taking it to a sitting position puts his head forward and stretches his legs	MG	47(0.94)	24(0.86)	6(0.75)	0.0086*
8.7. Child supports his weight on both hands. The head and trunk should raised off the exam surface prone position	MG	46(0.92)	26(0.93)	2(0.25)	<0.0001*
8.8. Child shifts his weight from one arm to the other when attempting to reach for the object prone position	MG	46(0.92)	24(0.86)	1(0.13)	<0.0001*
8.9. Infant produces different sounds simple consonant-vowel ba-ba, ta-ta, ma-ma	LE	44(0.88)	17(0.61)	1(0.13)	<0.0001*
8.10. Responds to name	LR	44(0.88)	20(0.71)	3(0.38)	0.0003*
4. Straightening reflex of the body acting on the body	RD	47(0.94)	26(0.93)	3(0.38)	<0.0001*
5. Defense forward reflex	RD	42(0.84)	21(0.75)	2(0.25)	<0.0001*
Twelfth month	**Area**		**Risk**		**P**
n = 77		**Low**	**Middle**	**High**	
12.1. Drinks from a sippy cup with help, without spilling liquid or choking*	A	32(0.97)	21(0.7)	7(0.5)	0.0007*
12.2. Picks up objects with thrumb-fingertip (pincer grasp)	MF	33(1)	25(0.83)	6(0.43)	<0.0001*
12.3. Child play, imitation games, the infant mimic with his hands	C	33(1)	27(0.9)	8(0.57)	0.0001*
12.4. Sitting, she or he grabs or lifts the ball		33(1)	28(0.93)	8(0.57)	<0.0001*
12.5. Sitting, using an overhand or underhand motion, she or he throws or rolls the ball gently toward the adult, establishing a game	LR	33(1)	25(0.83)	10(0.71)	0.0114*
12.6. Child raises self to a standing position, using a convenient object for support*	MG	33(1)	28(0.93)	9(0.64)	0.0004*
12.7. Child moves independently. Crawly styles: classic hands-and-knees or cross crawl. Bear crawl. Bottom scooter. Crab crawl. Rolling crawl.	MG	32(0.97)	24(0.8)	8(0.57)	0.0033*
12.8 Child walks by making coordinated steps, may hold on to one hand for support	MG	29(0.88)	17(0.57)	5(0.36)	0.0009*
12.9. Child uses words: mom and dad inespecific*	LE	31(0.94)	22(0.73)	1(0.07)	<0.0001*
12.10. Child performs simple orders with gesture like come here, give me, do not do that*	LR	33(1)	27(0.9)	8(0.57)	0.0007*
6. Sides protection reflex	RD	33 (1)	28(0.93)	7 (0.5)	<0.0001*
7. Backwards protection reflex	RD	27 (0.82)	23(0.77)	4(0.29)	0.0008*
Eighteenth month	**Area**		**Risk**		**P**
n = 65		**Low**	**Middle**	**High**	
18.1. Eats only with the spoon even if it spills*	A	22(0.96)	23(0.85)	9(0.6)	0.0354*

18.2. Child puts the pellets in the bottle	C	23(1)	23(0.85)	13(0.87)	0.0053*
18.3. Child removes the pellets from the bottle. Dumping the pellet from the bottle.	C	23(1)	25(0.93)	13(0.87)	0.0194*
18.4. Child identifies two objects or persons in pictures	LR	23(1)	27(1)	13(0.87)	<0.0001*
18.5. Child in standing position. she or he throws the ball with one or both hands		23(1)	24(0.89)	13(0.87)	<0.0001*
18.6. Child standing position, she or he throws the ball toward the adult, establishing a game	LR	23(1)	26(0.96)	14(0.93)	0.0003*
18.7. Child comes down from a standing position to a squat position in a controlled manner and gets back on his feet*	MG	22(0.96)	22(0.81)	14(0.93)	0.0143*
18.8. Child freely walks	MG	19(0.83)	21(0.78)	8(0.53)	0.0040*
18.9. Child uses words appropriately like mama and dada plus other three*	LE	22(0.96)	21(0.78)	10(0.67)	<0.0001*
18.10. Child identifies one or more body parts on himself or herself	LR	23(1)	24(0.89)	14(0.93)	0.0248*
8. Sitting balance reflex	RD	23(1)	26(0.96)	12(0.80)	0.0339*
9. Balance in four points reflex	RD	23(1)	23(0.85)	6(0.40)	<0.0001*
Twenty-fourth month	**Area**		**Risk**		**P**
n = 61		**Low**	**Middle**	**High**	
24.1. Wrap up a candy or banana*	A	24(0.96)	18(0.75)	5(0.42)	0.0091*
24.2. Child wrap up a candy or banana and will be eating*	A	25(1)	21(0.88)	9(0.75)	
24.3. Copy a line in any direction (trace a line)	MF	25(1)	14(0.58)	6(0.5)	0.0004*
24.4. Child can help in housework for imitation*	C	25(1)	22(0.92)	9(0.75)	
24.5. Child kick the ball standing unsupported	MG	24(0.96)	16(0.67)	6(0.5)	0.0072*
24.6. Child can sit in a normal chair*	MG	25(1)	21(0.88)	10(0.83)	
24.7. Child use location in a chair to reach an object*	C	25(1)	24(1)	10(0.83)	0.0424*
24.8. Child run without falling	MG	23(0.92)	23(0.96)	7(0.58)	0.0013*
24.9. Child say two-word phrases*	LE	25(1)	21(0.88)	2(0.17)	<0.0001*
24.10. Child say your name or call yourself "baby" or "nene"	LR	23(0.92)	14(0.58)	1(0.08)	<0.0001*
10. Standing up balance reflex	RD	25(1)	20(0.83)	8(0.67)	0.0003*

The significance of this table, is present variability in the risk's range.

Table 1.
Number cases and proportions, will be conducted present in levels risk factors.

and reassures when being charged. At high risk, there are suction problems (**Table 1**) [17].

Fourth's month cohort in low risk (1)–(0.95) perform the behaviors; those of medium risk between (0.91) and (0.64), presenting a greater difficulty in bringing the hand to the middle line to reach objects, take it to the mouth and in a thick

motor the prone position; in high-risk children all are kept low and only by playing talk or laughing at (0.86) (**Table 1**).

Eighth's month cohort, there is a better performance in children with low and moderate risk, in children with moderate risk, interaction behaviors as it shows interest in the face of the mother when she is playing a game and heeds her name when they call it by this, here according to clinical practice, we observe that in the Mexican population mothers tend to sing and talk to their children a little, so we see that this competition to collect syllables is almost not favored, in different researches in open population is reported later the construction of language and in order to appropriate the name tends to name it with different nicknames, so it is difficult for the child to make the association between the word that calls it, these reagents will allow the professional give more advice to the caregivers to encourage singing to make movements that allow your child to pay attention, follow a sequence and foresee what He will come, first paying attention and exploring, then imitating.

In high-risk children, most of the reagents are outlined low (0.88–0.13), the difficulty remains in thick motor, coupled with the forward protection development reaction. The behavior of finding a partially hidden toy is presented in (0.88), which is evaluated as a cognitive competence of permanence of the object, which lead the child to the representation of the object, even if he does not see it and later to the displacements [18] (**Table 1**).

Cohort 12 months, at high risk all behaviors are presented little, when analyzing them compared with moderate risk, it is observed that drinks from a cup with undrained support [19] is a moderate low proportion (0.70) and high (0.50) risk, this competition is little facilitated since caregivers prefer to use the trainer cup, as it can be manipulated by the infant and does not spill, taking in cup with support allows the development of a good control of lips and jaw, closing the lips around the edge of the cup and push the liquid into the mouth and do not leave the corners. Here we observe two risk factors: the upbringing that does not facilitate its construction and the tone could be involved in high-risk children. Walks well sustained by one hand, both in low and moderate and high risk, are less positive than other behaviors, Gesell's reports it at 13 months [13, 20], the protection reaction backwards, comes in moderate (0.77) and high (0.29) risk. As the expressive language has been analyzed, there is little in moderate (0.73) and high (0.07) risk, in this reagent, the rearing plays an important factor, since the caregivers respond to the bisyllabic vocalizations of the infant that is used to name everything he sees and the caregiver helping him with his response to labeling and thus form the first words with meaning, in the literature a period of 11–14 months is proposed [13, 21].

Cohort 18 months, the use of spoon, occurs in a greater number of cases than in the previous cuts, in high risk occurs (0.60) [22]. Saying three words as a specific label to name objects, situations, or people is presented in moderate (0.78) and high (0.67) than in previous cuts. Walk alone, occurs in a low to moderate (0.78) and high (0.53) and at high risk, the equilibrium reaction is presented in four points in (0.40).

Twentieth fourth's month cohort, at high risk, there is a lower proportion of positives, highlighting when comparing the behavior develops a moderate sweet (0.75) and high (0.42) risk. Kick the ball by moving the leg to the moderate front (0.67) and high (0.50), this competition develops when the game is facilitated with the child. The reagent copies a line either vertically or horizontally, defined in moderate (0.58) and high (0.50) risk, this competition we see it more in children who attend childcare, where it is facilitated, the infant requires holding the pencil with the tip down and controlling the movement, decreasing the amplitude and stopping the action while doing it (**Table 2**).

Working with a population that has not been presented with perinatal risk or conditions that determine a risk for disability, allows us to establish the need to

	Area	BR	MR	AR	P-values
1.1. Child sucking without choking or turning purple*	A	0.96	0.80	0.36	<0.0001*
4.1. Child does not reject to eat mashed food, energetic suction*	A	1	0.85	0.50	0.0091*
8.1. Eats a cookie alone*	A	0.92	0.86	0.63	0.0044*
12.1. Drinks from a sippy cup with help, without spilling liquid or choking*	A	0.97	0.7	0.5	0.0007*
18.1. Eats only with the spoon even if it spills*	A	0.96	0.85	0.6	0.0354*
24.1. Wrap up a candy or banana*	A	0.96	0.75	0.42	0.0091*
24.2. Child wrap up a candy or banana and will be eating*	A	1	0.88	0.75	
	Area	**BR**	**MR**	**AR**	**P-values**
1.3. Child clearly responds to the sound of the rattle and stop or increase movement	C	0.98	1.00	0.86	
4.3. Child carries and object to his or her mouth	C	1	0.70	0.59	0.0004*
8.4. Finds a partially hidden toy	C	0.90	0.86	0.88	
8.5. Explores the face of the mother with interest*	C	0.92	0.79	0.75	0.0136*
12.3. Child play, imitation games, the infant mimic with his hands	C	1	0.9	0.57	0.0001*
18.2. Child puts the pellets in the bottle	C	1	0.85	0.87	0.0053*
18.3. Child removes the pellets from the bottle. Dumping the pellet from the bottle.	C	1	0.93	0.87	0.0194*
18.6. Child standing position, she or he throws the ball toward the adult, establishing a game	C	1	0.96	0.93	0.0003*
24.4. Child can help in housework for imitation*	C	1	0.92	0.75	
24.7. Child use location in a chair to reach an object*	C	1	1	0.83	0.0424*
	Area	**BR**	**MR**	**AR**	**P-values**
1.9. Cries loud when is displeasure*	LE	0.98	1.00	0.79	0.0275*
4.10. Child vocalizes spontaneously or in response to the speaker's attention*	LE	1	0.82	0.73	<0.0001*
8.9. Infant produces different sounds simple consonant-vowel ba-ba, ta-ta, ma-ma	LE	0.88	0.61	0.13	<0.0001*
12.9. Child uses words: mom and dad inespecific*	LE	0.94	0.73	0.07	<0.0001*
18.9. Child uses words appropriately like mama and dada plus other three*	LE	0.96	0.78	0.67	<0.0001*
24.9. Child say two-word phrases*	LE	1	0.88	0.17	<0.0001*
24.10. Child say your name or call yourself "baby" or "nene"	LE	0.92	0.58	0.08	<0.0001*
	Area	**BR**	**MR**	**AR**	**P-values**
1.10. Child calms when picked up and snuggle*	LR	1.00	1.00	0.93	
4.4. Social interaction playing or laughs*	LR	1	0.85	0.86	
8.10. Responds to name	LR	0.88	0.71	0.38	0.0003*
12.5. Sitting, using an overhand or underhand motion, she or he throws or rolls the ball gently toward the adult, establishing a game	LR	1	0.83	0.71	0.0114*
12.10. Child performs simple orders with gesture like come here, give me, do not do that*	LR	1	0.9	0.57	0.0007*

18.4. Child identifies two objects or persons in pictures	LR	1	1	0.87	<0.0001*
18.10. Child identifies one or more body parts on himself or herself	LR	1	0.89	0.93	0.0248*
	Area	**BR**	**MR**	**AR**	**P-values**
1.2. Palmar grasp	MF	1.00	0.90	0.64	
1.4. Eye contact	MF	1.00	0.90	0.79	0.0017*
1.5. Eyes fellow the face 90° (45°/45°)	MF	0.96	0.60	0.50	
4.2. Contact grasp	MF	1	0.91	0.77	
4.5. Turns head to follow the ring 180°	MF	0.95	0.79	0.73	0.0072*
4.6. Child uses at least one hand to grasp the object in the midline or while moving	MF	1	0.73	0.32	
8.3. Takes an object in each hand	MF	0.92	0.86	0.75	0.0387*
12.2. Picks up objects with thrumb-fingertip (pincer grasp)	MF	1	0.83	0.43	<0.0001*
12.4. Sitting. she or he grabs or lifts the ball	MF	1	0.93	0.57	<0.0001*
18.5. Child in standing position, she or he throws the ball with one or both hands	MF	1	0.89	0.87	<0.0001*
24.3. Copy a line in any direction (trace a line)	MF	1	0.58	0.5	0.0004*
	Area	**BR**	**MR**	**AR**	**P-values**
1.6 Child hold his or her head erect for at 3 seconds or try to straighten it seated	MG	1.00	0.60	0.50	<0.0001*
1.7. Child turns his or her head from one side by raising his or her head off the supporting surface enough to clear the nose	MG	0.98	0.80	0.57	0.0263*
1.8. Child is lying prone on the exam surface with flexion of the limbs	MG	1.00	0.70	0.71	0.0246*
4.7. Child holds onto your hands to seat it, the head is aligned to the body.	MG	1	0.91	0.64	0.0424*
4.8. Child pushes up using both arms so that the head and chest are lifted off the exam surface	MG	1	0.67	0.23	0.00134*
4.9. Child is not discomfort by the prone position	MG	1	0.64	0.32	<0.0001*
8.2. Sits alone without support	MG	0.92	1.00	0.75	0.0027*
8.6. Child when taking it to a sitting position puts his head forward and stretches his legs	MG	0.94	0.86	0.75	0.0086*
8.7. Child supports his weight on both hands. The head and trunk should raised off the exam surface prone position	MG	0.92	0.93	0.25	<0.0001*
8.8. Child shifts his weight from one arm to the other when attempting to reach for the object prone position	MG	0.92	0.86	0.13	<0.0001*
12.6. Child raises self to a standing position, using a convenient object for support*	MG	1	0.93	0.64	0.0004*
12.7. Child moves independently. Crawly styles: classic hands-and-knees or cross crawl. Bear crawl. Bottom scooter. Crab crawl. Rolling crawl.	MG	0.97	0.8	0.57	0.0033*
12.8. Child walks by making coordinated steps, may hold on to one hand for support	MG	0.88	0.57	0.36	0.0009*
18.7. Child comes down from a standing position to a squat position in a controlled manner and gets back on his feet*	MG	0.96	0.81	0.93	0.0143*
18.8. Child freely walks	MG	0.83	0.78	0.53	0.0040*

24.5. Child kick the ball standing unsupported	MG	0.96	0.67	0.5	0.0072*
24.6. Child can sit in a normal chair*	MG	1	0.88	0.83	
24.8. Child run without falling	MG	0.92	0.96	0.58	0.0013*
	Area	**BR**	**MR**	**AR**	**Significance level**
1. Labyrinth optical reflex	RD	0.94	0.9	0.77	
2. Straightening reflex of the head acting on the body	RD	0.96	1	0.64	0.0008*
3. Landau's reflex	RD	0.86	0.91	0.5	<0.0001*
4. Straightening reflex of the body acting on the body	RD	0.94	0.93	0.38	<0.0001*
5. Defense forward reflex	RD	0.84	0.75	0.25	<0.0001*
6.Sides protection reflex	RD	1	0.93	0.5	<0.0001*
7. Backwards protection reflex	RD	0.82	0.77	0.29	0.0008*
8. Sitting balance reflex	RD	1	0.96	0.8	0.0339*
9. Balance in four points reflex	RD	1	0.85	0.4	<0.0001*
10. Standing up balance reflex	RD	1	0.83	0.67	0.0003*

Table 2.
Area and P-values correlations.

monitor child neurodevelopment, so that the professional at the first level of care can detect biological or social obstacles, to advise the caregivers and enable an optimal development necessary to channel it to diagnostic studies and specialized attention and continue with the monitoring of the child to see how the adaptations work.

When analyzing by areas of development, the VANEDELA's reagents in feeding (A) for infants of moderate risk taking the help of a cup and uncovering a sweet or easy fruit are kept low, as we have said it is not favored in the family possibly because it takes time and the caregivers prefer to solve the challenge quickly, in the consultation it has been found that the caregivers see it as an instrumental activity, not as moments for the child to put into play their motor, cognitive, and emotional skills for its development. In the sample of high risk, eating with a single cookie and candy, which is a behavior favored by parents, occurs with greater proportions.

Cognitive (C) in moderate, the lowest proportions are in exploration behaviors taking the object to the mouth and attention and exploration of your face or another part of the body when the caregiver plays with him/her and is the antecedent of imitation, being an activity that little favor the caregivers, preferring to put the electronic systems. High risk, that in the sequence of development have greater proportions in permanence of the object to find partially hidden object, the content-continent to put and take the seeds or candy from a bottle, this skill is practiced with various objects and containers, the give and take relationship understanding the game and the use of a means to achieve an end.

In expressive language in moderate risk, the lowest proportions are in the emission of bisyllables and first words, highly related to the interaction with the caregiver and recognize their vocalizations and interpret them to give meaning, it is one of the scales that in Mexico leave lower, Rizzoli-Córdoba et al. [23] report it in their evaluation in open population. In receptive in moderate risk, a low proportion

[1] In Spanish, bebé or nene are synonymous commonly used to name a newborn, in English the translation is similar baby in this case used the Spanish words to show the differences.

comes out in recognizing his name and responding when they call him, as he said previously in the Mexican population names are invented: *bebé or nene*[1] is said to call them. At high risk, he consoles himself when carrying it, he smiles when he talk and he recognizes images and parts of the body that are closely linked to the cognitive aspect. Fine motor with lower proportions is the tracking that travels in the middle line and then draw a line, both are little favored, mostly caregivers prefer to give them the rattle and writing is considered a more school activity. In thick motor mainly prone behavior and walking on one hand are in a low proportion, in many parts of the Mexico, it is considered risky to grab one hand prefer to take it from the two and the prone position is not favored arguing that it is a position that the child does not like, they prefer to leave it in the car seat or carry it. At high risk, it has a higher proportion of squatting and climbing into a large chair, which would require better equilibrium reactions than at low ages.

The reactions of the development of protection forward and backward are presented in a lower percentage in the three types of risk and at high risk throughout the trajectory [24].

In Mexico, there are still risks such as malnutrition, acute and chronic diseases, social limitations with few opportunities for exploration and interaction at home and with other children, and so on. It is therefore difficult to develop early skills of movement, manipulation, attention, problem solving, language, and establishment of social relationships that can trace a path not optimal in the development cycle and impact the following educational processes and social inclusion. This condition is frequently reported in developing countries [8].

5. Conclusions

It is proposed to the professional in clinical practice to go beyond the classification of risk or non-risk, analyzing the behavior that the child has constructed and the possible obstacles that it presents, whether of an organic or social nature.

The VANEDELA's neurodevelopment screening test allows the first-level care professional using its four formats to have specific development references to establish when the child is and what the proximal area is to favor, designing strategies that allow the infant go building more complex competences.

The VANEDELA's design allows children to be assessed quickly through their six age cohorts, in which the different skills have been consolidated. However, its main limitation is that if the child is of intermediate age, we should wait for the confirmation of the risk. At present, we are working on intermediate milestones that will allow professionals to determine the evolution moment of the behaviors.

It is very important to consider that for both low- and high-risk children, their development must be monitored independently of the preventive or corrective medicine procedures that are carried out, in order to obtain, as proposed by WHO, the optimum development.

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